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PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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Welcome to STN International
NEWS
                 Web Page for STN Seminar Schedule - N. America
NEWS
         MAY 01
                 New CAS web site launched
NEWS
         MAY 08
                 CA/CAplus Indian patent publication number format defined
NEWS
        MAY 14
                 RDISCLOSURE on STN Easy enhanced with new search and display
NEWS
         MAY 21
                 BIOSIS reloaded and enhanced with archival data
NEWS
         MAY 21
                 TOXCENTER enhanced with BIOSIS reload
NEWS
         MAY 21
                 CA/CAplus enhanced with additional kind codes for German
                 patents
NEWS
         MAY 22
                 CA/CAplus enhanced with IPC reclassification in Japanese
                 patents
         JUN 27
NEWS
                 CA/CAplus enhanced with pre-1967 CAS Registry Numbers
         JUN 29
NEWS 10
                 STN Viewer now available
NEWS 11
         JUN 29
                 STN Express, Version 8.2, now available
NEWS 12
         JUL 02
                 LEMBASE coverage updated
NEWS 13
        JUL 02
                 LMEDLINE coverage updated
NEWS 14
        JUL 02
                 SCISEARCH enhanced with complete author names
NEWS 15
        JUL 02
                 CHEMCATS accession numbers revised
NEWS 16
        JUL 02
                 CA/CAplus enhanced with utility model patents from China
NEWS 17
        JUL 16
                 CAplus enhanced with French and German abstracts
NEWS 18
        JUL 18.
                 CA/CAplus patent coverage enhanced
NEWS 19
                 USPATFULL/USPAT2 enhanced with IPC reclassification
         JUL 26
NEWS 20
        JUL 30
                 USGENE now available on STN
        AUG 06
                 CAS REGISTRY enhanced with new experimental property tags
NEWS 21
NEWS 22
        AUG 06
                 BEILSTEIN updated with new compounds
NEWS 23
         AUG 06
                 FSTA enhanced with new thesaurus edition
NEWS 24
        AUG 13
                 CA/CAplus enhanced with additional kind codes for granted
                 patents
                 CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 25
         AUG 20
NEWS 26
        AUG 27
                 Full-text patent databases enhanced with predefined
                 patent family display formats from INPADOCDB
NEWS 27
         AUG 27
                 USPATOLD now available on STN
NEWS 28
        AUG 28
                 CAS REGISTRY enhanced with additional experimental
                 spectral property data
NEWS EXPRESS
              29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,
              CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.
              STN Operating Hours Plus Help Desk Availability
NEWS HOURS
NEWS LOGIN
              Welcome Banner and News Items
NEWS IPC8
              For general information regarding STN implementation of IPC 8
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=> FILE REG

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

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STRUCTURE FILE UPDATES: 28 AUG 2007 HIGHEST RN 945714-55-6 DICTIONARY FILE UPDATES: 28 AUG 2007 HIGHEST RN 945714-55-6

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http://www.cas.org/support/stngen/stndoc/properties.html

=>Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END): end

=> screen 1992 OR 2004 OR 2016 OR 2021 OR 2026

L1 SCREEN CREATED

Uploading C:\Program Files\Stnexp\Queries\10575485.str

L2 STRUCTURE UPLOADED

=> que L2 NOT L1

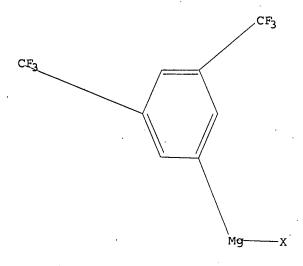
L3 QUE L2 NOT L1

=> D L3

L3 HAS NO ANSWERS

L1 SCR 1992 OR 2004 OR 2016 OR 2021 OR 2026

L2 STR



Structure attributes must be viewed using STN Express query preparation. L3 QUE ABB=ON PLU=ON L2 NOT L1

=> S L3

SAMPLE SEARCH INITIATED 15:58:11. FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 0 TO 0

PROJECTED ANSWERS: 0 TO 0

L4 0 SEA SSS SAM L2 NOT L1

=> S L3 FULL

FULL SEARCH INITIATED 15:58:16 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 9 TO ITERATE

100.0% PROCESSED 9 ITERATIONS 2 ANSWERS

SEARCH TIME: 00.00.01

L5 2 SEA SSS FUL L2 NOT L1

=> FILE CAPLUS

COST IN U.S. DOLLARS SINCE FILE TOTAL

ENTRY SESSION

FULL ESTIMATED COST 172.10 172.31

FILE 'CAPLUS' ENTERED AT 15:58:21 ON 29 AUG 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited. FILE COVERS 1907 - 29 Aug 2007 VOL 147 ISS 10 FILE LAST UPDATED: 28 Aug 2007 (20070828/ED) Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at: http://www.cas.org/infopolicy.html => S L5 L6 39 L5 => S PARAFORMALDEHYDE 17521 PARAFORMALDEHYDE 15 PARAFORMALDEHYDES L7 17523 PARAFORMALDEHYDE (PARAFORMALDEHYDE OR PARAFORMALDEHYDES) => S L6 AND L7 1 L6 AND L7 => D BIB ABS HITSTR ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN 2005:346966 CAPLUS AN DN ТT Grignard reaction process for the preparation 3,5bis(trifluoromethyl)benzyl alcohol from 3,5-bis(trifluoromethyl)phenylmagn esium halides and solid paraformaldehyde IN Nardello, Alessandro; Pretto, Marisa; Faccin, Andrea PA Miteni S.p.A., Italy SO PCT Int. Appl., 14 pp. CODEN: PIXXD2 DT Patent English LA FAN.CNT 1 APPLICATION NO. PATENT NO. KIND DATE DATE _____ _ _ _ _ WO 2005035472 20050421 WO 2003-IT616 20031013 ΡI A1 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2003-279541 AU 2003279541 20050427 Αl 20031013 EP 1673329 20060628 EP 2003-772649 20031013 Αl AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK US 2006-575485 20070614 20060707 US 2007135662 A1 PRAI WO 2003-IT616 20031013 CASREACT 142:392168 os AB A Grignard reaction process for the preparation 3,5-bis(trifluoromethyl)benzyl alc. (I) from 3,5-bis(trifluoromethyl)phenylmagnesium halides [e.g.,

3,5-bis(trifluoromethyl)phenylmagnesium bromide] and solid paraformaldehyde is described. I can then be converted into

3,5-bis(trifluoromethyl)benzyl halides [e.g., 3,5-

bis(trifluoromethyl)benzyl bromide] by halogenation with hydrogen halides (e.g., hydrogen bromide).

IT 112981-69-8P, 3,5-Bis(trifluoromethyl)phenylmagnesium bromide 535949-95-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(Grignard reaction process for the preparation 3,5-

bis(trifluoromethyl)benzyl alc. from 3,5-bis(trifluoromethyl)phenylmagn esium halides and solid paraformaldehyde)

RN 112981-69-8 CAPLUS

CN Magnesium, [3,5-bis(trifluoromethyl)phenyl]bromo- (9CI) (CA INDEX NAME)

RN 535949-95-2 CAPLUS

CN Magnesium, [3,5-bis(trifluoromethyl)phenyl]chloro- (9CI) (CA INDEX NAME)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> FILE CASREACT SINCE FILE COST IN U.S. DOLLARS ENTRY SESSION FULL ESTIMATED COST 8.69 181.00 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE -0.78 -0.78

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FILE CONTENT: 1840 - 25 Aug 2007 VOL 147 ISS 10

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This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> S L5
L9
            16 L5
=> S PARAFORMALDEHYDE
          4192 PARAFORMALDEHYDE
             1 PARAFORMALDEHYDES
L10
          4192 PARAFORMALDEHYDE
                 (PARAFORMALDEHYDE OR PARAFORMALDEHYDES)
=> S L9 AND L10
L11
             1 L9 AND L10
=> D BIB ABS CRDREF
     ANSWER 1 OF 1 CASREACT COPYRIGHT 2007 ACS on STN
ΑN
     142:392168 CASREACT
     Grignard reaction process for the preparation 3,5-
TI
     bis(trifluoromethyl)benzyl alcohol from 3,5-bis(trifluoromethyl)phenylmagn
     esium halides and solid paraformaldehyde
     Nardello, Alessandro; Pretto, Marisa; Faccin, Andrea
IN
PA
     Miteni S.p.A., Italy
SO
     PCT Int. Appl., 14 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                      KIND DATE
                                           APPLICATION NO.
                                                            DATE
     PATENT NO.
                            20050421
                                           WO 2003-IT616
                                                             20031013
ΡI
     WO 2005035472
                      A1
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
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             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
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                            20050427
                                           AU 2003-279541
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                       Α1
                                           EP 2003-772649
     EP 1673329
                       A1
                            20060628
                                                             20031013
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK
                                           US 2006-575485
                            20070614
                                                             20060707
     US 2007135662
                       A1
PRAI WO 2003-IT616
                      20031013
     A Grignard reaction process for the preparation 3,5-bis(trifluoromethyl)benzyl
     alc. (I) from 3,5-bis(trifluoromethyl)phenylmagnesium halides [e.g.,
     3,5-bis(trifluoromethyl)phenylmagnesium bromide] and solid
     paraformaldehyde is described. I can then be converted into
     3,5-bis(trifluoromethyl)benzyl halides [e.g., 3,5-
     bis(trifluoromethyl)benzyl bromide] by halogenation with hydrogen halides
```

(e.g., hydrogen bromide).

PCT Int. Appl., 2005035472, 21 Apr 2005

CON: 10 minutes

Br-Mg
$$CF_3$$

$$\frac{1. \text{ HCHO}, \text{ S:}402-31-3}{2. \text{ H2SO4}, \text{ Water}}$$

$$(\text{step 1})$$

$$CF_3$$

$$CF_3$$

$$CH_2-\text{OH}$$

PCT Int. Appl., 14 pp.; 2005 STAGE(1) 6 hours, 45 deg C REF: CON:

RX(4) OF 6 - 2 STEPS

PCT Int. Appl., 14 pp.; 20 STEP(1) 10 minutes STEP(2.1) 6 hours, 45 deg C 2005 REF: CON:

RX(5) OF 6 - 2 STEPS

REF: PCT Int. Appl., 14 pp.; 2005 CON:

STEP(1.1) 6 hours, 45 deg C STEP(2.1) 50 deg C; 30 minutes; 100 - 105 deg C; 8 hours; 1.5 hours, reflux

RX(6) OF 6 - 3 STEPS

REF: PCT Int. Appl., 14 pp.; 2005 CON: STEP(1) 10 minutes STEP(2.1) 6 hours, 45 deg C STEP(3.1) 50 deg C; 30 minutes; 100 - 105 deg C; 8 hours; 1.5 hours, reflux

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

(FILE 'HOME' ENTERED AT 16:11:16 ON 29 AUG 2007)

FILE 'REGISTRY' ENTERED AT 16:11:30 ON 29 AUG 2007 STRUCTURE UPLOADED

=> d l1

Ll

L1 HAS NO ANSWERS

L1 STR

Structure attributes must be viewed using STN Express query preparation.

SAMPLE SEARCH INITIATED 16:11:49 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 1126 TO ITERATE

100.0% PROCESSED 1126 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

20507 TO 24533

PROJECTED ANSWERS:

O TO 0

L2

0 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 16:11:54 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 22288 TO ITERATE

100.0% PROCESSED 22288 ITERATIONS 1 ANSWERS

SEARCH TIME: 00.00.01

L3 1 SEA SSS FUL L1

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL

SESSION

ENTRY FULL ESTIMATED COST 172.10 172.31

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FILE COVERS 1907 - 29 Aug 2007 VOL 147 ISS 10 FILE LAST UPDATED: 28 Aug 2007 (20070828/ED)

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http://www.cas.org/infopolicy.html

=> s l1

REG1stRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress... Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 16:12:03 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED -1126 TO ITERATE

100.0% PROCESSED 1126 ITERATIONS SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

> BATCH **COMPLETE**

PROJECTED ITERATIONS: 20507 TO

24533 PROJECTED ANSWERS: O TO

0 SEA SSS SAM L1 T.4

L5 0 L4

=> 8 13

57 L3 L6

=> s 13/prep

57 L3

4453515 PREP/RL

L7 9 L3/PREP

(L3 (L) PREP/RL)

=> d 1-9 bib abs

ANSWER 1 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN **L7**

2005:346966 CAPLUS ΑN

DN 142:392168

TI Grignard reaction process for the preparation 3,5bis(trifluoromethyl)benzyl alcohol from 3,5-bis(trifluoromethyl)phenylmagn esium halides and solid paraformaldehyde

Nardello, Alessandro; Pretto, Marisa; Faccin, Andrea IN

```
Miteni S.p.A., Italy
PA
      PCT Int. Appl., 14 pp.
SO
      CODEN: PIXXD2
DT
      Patent
LA
      English
FAN.CNT 1
      PATENT NO.
                             KIND
                                      DATE
                                                    APPLICATION NO.
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PΙ
      WO 2005035472
                              A1
                                      20050421
                                                  WO 2003-IT616
                                                                               20031013
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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                                                   US 2006-575485
      US 2007135662
                              A1
                                      20070614
                                                                                20060707
PRAI WO 2003-IT616
                                      20031013
                               Α
     CASREACT 142:392168
OS
AB
      A Grignard reaction process for the preparation 3,5-bis(trifluoromethyl)benzyl
      alc. (I) from 3,5-bis(trifluoromethyl)phenylmagnesium halides [e.g.,
      3,5-bis(trifluoromethyl)phenylmagnesium bromide] and solid
      paraformaldehyde is described. I can then be converted into
      3,5-bis(trifluoromethyl)benzyl halides [e.g., 3,5-
      bis(trifluoromethyl)benzyl bromide] by halogenation with hydrogen halides
      (e.g., hydrogen bromide).
RE.CNT 3
                THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
                ALL CITATIONS AVAILABLE IN THE RE FORMAT
L7
      ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
ΑN
      2003:884526 CAPLUS
DN
      139:364696
TI
      Preparation of high-purity (fluoroalkyl)benzenes
IN
      Hidaka, Toshio; Fushimi, Norio; Yoshimura, Takashi; Kawai, Ken
PA
      Mitsubishi Gas Chemical Co., Ltd., Japan
      Jpn. Kokai Tokkyo Koho, 14 pp.
SO
      CODEN: JKXXAF
DT
      Patent
LA
      Japanese
FAN.CNT 1
      PATENT NO.
                             KIND
                                      DATE
                                                   APPLICATION NO.
                                                                               DATE
                              _ _ _ _
                                      _____
                                                    -----
                                                    JP 2002-128158
ΡI
      JP 2003321406
                              Α
                                      20031111
                                                                                20020430
      WO 2003093212
                                      20031113
                                                    WO 2003-JP5261
                              A1
                                                                                20030424
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               IT, LU, MC, NL, PT, RO, SE, SI, SK, TR
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      EP 1500641
                                                  EP 2003-723191
                              Α1
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               IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK
                                      20050810
      CN 1653029
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                                                   CN 2003-811283
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      US 2006167324
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                              A1
                                      20060727
                                                                                20050616
PRAI JP 2002-128158
                              Α
                                      20020430
      WO 2003-JP5261
                              W
                                      20030424
os
      CASREACT 139:364696; MARPAT 139:364696
GI
```

$$X \xrightarrow{X_S} R$$
 $R \xrightarrow{R_m} R$
 $R \xrightarrow{R} I$

AB Title compds. are prepared by photohalogenation of side chains of alkylbenzenes I (X, Xs = H, OH, alkyl, aryl, halo, etc.; R, Rm = H, CO2H, halocarbonyl, alkyloxycarbonyl, etc.), showing Group 3-12 transition metal content ≤500 ppm, and treatment with ≥10 mol HF/mol-(haloalkyl)benzene for halogen-F exchange. 2,5-Bis(trichloromethyl)benzoyl chloride (preparation given) was treated with HF at 150° for 13 h to give 83% 3,5-bis(trifluoromethyl)benzoyl fluoride, which was hydrolyzed to give metal-free 3,5-bis(trifluoromethyl)benzoic acid with ≥99.9% purity.

L7 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2002:361403 CAPLUS

DN 137:279074

TI (S)-(-)- and (R)-(+)-4-methyl-2-hydroxymethyl[2]paracyclo-[2](5,8)quinolinophane: novel N,O-planar chiral catalysts for the enantioselective addition of diethylzinc to aldehydes

AU Ruzziconi, Renzo; Piermatti, Oriana; Ricci, Giacomo; Vinci, Daniele

CS Dipartimento di Chimica, Universita di Perugia, Perugia, I-6100, Italy

SO Synlett (2002), (5), 747-750 CODEN: SYNLES; ISSN: 0936-5214

PB Georg Thieme Verlag

DT Journal

LA English

OS CASREACT 137:279074

Novel planar chiral N,O-ligands derived from (R)-(+)- and (S)-(-)-2,4-dimethyl[2]paracyclo[2](5,8)quinolinophane were synthesized and employed as catalysts in the enantioselective addition of diethylzinc to aromatic aldehydes. For example, benzaldehyde is alkylated with diethylzinc in the presence of (S)-(-)-4-methyl-2-hydroxymethyl[2]paracyclo-[2](5,8)quinolinophane to give 99% 1-phenyl-1-propanol. On the basis of the ee values, ranging from 30% to 75%, and the configuration of the obtained 1-phenyl-1-propanols, a plausible structure of the transition state for the alkylation process of the aldehydes is discussed.

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:876760 CAPLUS

DN 134:41974

TI Process for the preparation of benzyl alcohols and their use

IN Neugebauer, Torsten; Marhold, Albrecht

PA Bayer A.-G., Germany

SO Eur. Pat. Appl., 8 pp. CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE
PI EP 1059280 A2 20001213 EP 2000-110999 20000530

EP 1059280 **A3** 20040204 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO DE 19926621 A1 20001214 DE 1999-19926621 19990611 20010109 JP 2001002601 Α JP 2000-151267 20000523 US 6462242 B1 20021008 US 2000-587742 20000605 PRAI DE 1999-19926621 Α 19990611 CASREACT 134:41974; MARPAT 134:41974 AB Benzyl alcs., especially those containing fluoro or fluoroalkyl substituents

in the
 benzene ring, were prepared by palladium-catalyzed formylation of aryl
 bromides in the presence of CO and Na formate to give benzaldehydes,
 followed by reduction of the benzaldehydes with addnl. formate. Thus, 3.62 g
 4-CF3OC6H4Br reacted with 1.53 g Na formate and 0.21 g
 bis(triphenylphosphine)palladium dichloride (I) in 15 mL DMF at
 110° with introduction of CO to give a product containing 91%
 4-CF3OC6H4CHO (II) and 7% 4-CF3OC6H4CH2OH (III). Similarly, 8.55 g II was

reduced in the presence of 6.12 g Na formate and 0.63 g I in 45 mL DMF at

- L7 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 1995:482084 CAPLUS
- DN 122:313954
- TI Mechanisms of Benzyl Group Transfer in the Decay of (E) Arylmethanediazoates and Aryldiazomethanes in Aqueous Solutions
- AU Finneman, Jari I.; Fishbein, James C.

110° to give a 69% yield of III.

- CS Department of Chemistry, Wake Forest University, Winston-Salem, NC, 27109, USA
- SO Journal of the American Chemical Society (1995), 117(15), 4228-39 CODEN: JACSAT; ISSN: 0002-7863
- PB American Chemical Society
- DT Journal
- LA English

AB

Rate consts. are reported for the buffer-independent decay of ten (E)-arylmethanediazoates in aqueous media at 25 °, ionic strength 1 M (NaClO4), 4% 2-propanol, in the region of pH 4-12. The rate consts. are proportional to hydrogen ion concentration at high pH and become pH independent in the low-pH region. Varying concns. of oxyanion, amine, and hydrazine buffers over the range 0.05-0.2 M increased the pseudo-first-order rate constant for decay of the diazoates by less than 10%. The azide/water selectivities, ka/ks, for partitioning of the benzyl groups in the decay of (E)-(3,5-bis(trifluoromethyl)phenyl)methanediazoate and the (3,5-bis(trifluoromethyl)phenyl)diazomethane are determined to be 0.20 and 0.21 M-1, resp., in phosphate buffered water and 0.27 and 0.26 M-1, resp., in 20/80 DMSO-water. It is concluded that these two reactants decompose, in these media, via a common free diazonium ion intermediate that is formed in the case of the diazoate upon unassisted N-O bond cleavage of the diazoic acid. A common mechanism is indicated for all the diazoates by the correlation line for the plot of log k1, the pH independent rate constant, against σ that has a slope $\rho = -1.23$. Product ratios for trapping of benzyl groups derived from other pairs of arylmethanediazoates and aryldiazomethanes with less electron withdrawing groups are different outside exptl. error, indicating the importance of different nitrogen-separated ion pairs in these reactions. (E)-(p-methoxyphenyl)methane-160-diazoate decomps. in 160/180 water to give alc. that has an "excess" abundance of 160 compared to solvent. Decomposition of the same compound in 50/50 trifluoroethanol-water with varying concns. of azide indicates that azide ion appears to trap a limiting amount, .apprx.80%, of the p-methoxybenzyl group. Quant. anal. of the data indicates that 16% of the p-methoxybenzyl cation is trapped by solvent at the nitrogen-separated ion pair stage, in the absence of azide ion. There is a 9-fold enhancement of selectivity for trifluoroethanol at the ion pair stage that is ascribed to a proton switch initiated by the leaving hydroxide ion in the ion pair. The values of ka/ks .apprx. 0.2 M-1 and

kT/kH .apprx. 0.5-0.6 for the trifluoroethanol-water selectivity and kET/kT .apprx. 1 for the ethanol-trifluoroethanol selectivity are independent of substituent in the decay of arylmethanediazoates (X = H and EWG) in water, water-trifluoroethanol (50/50), and water-trifluoroethanolethanol (50/40/10), resp. The product-determining steps do not involve chemical

bonding but rather rotational/translational reorientation of the nucleophiles in the first solvation sphere of the carbocation intermediates. The values of kH/kT = 0.5-0.6 indicate preferential solvation of the cation precursor by trifluoroethanol. A preferential interaction for trifluoroethanol of <1 kcal/mol is required to generate the observed selectivities.

- L7 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 1985:148404 CAPLUS
- DN 102:148404
- TI Stereomutation of methoxycarbenium ions. 2. Experimental evidence for an inversion process
- AU Blackburn, Christopher; Childs, Ronald F.; Cremer, Dieter; Gauss, Juergen
- CS Dep. Chem., McMaster Univ., Hamilton, ON, L8S 4M1, Can.
- SO Journal of the American Chemical Society (1985), 107(8), 2442-8 CODEN: JACSAT; ISSN: 0002-7863
- DT Journal
- LA English
- OS CASREACT 102:148404
- The stereomutation about the C-O partial double bond of a series of AB 1-methoxy- (I) and 1-hydroxy-3-arylallyl cations (II) has been examined exptl. in strong acid solns. and theor. by HF/STO-3G calcns. interconversions of I were intramol. processes in FSO3H, CF3SO3H, and FSO3H/SbF5. The rate consts. of the stereomutation of these cations, by dynamic NMR methods, depend on the substituents on the aryl ring. Apart from the case where the aryl ring bears two m-CF3 groups, the rate consts. for stereomutation are linearly related to σ + (ρ = -2.37) with π donors accelerating the reaction. The calcus. performed for II show that the lowest energy pathway for isomerization involves rotation rather than inversion. They also reveal that $\pi\text{-donor}$ substituents on the aryl ring lower the barrier to rotation while raising the barrier to inversion. In both cases, the calculated barriers for substituted systems show a linear correlation with $\sigma+$. It is concluded that the preferred pathway for stereomutation of most of these 1-hydroxy- and 1-methoxyallyl cations in both strong acid solution and the gas phase involves rotation. When the aryl ring bears very strongly electron-withdrawing groups, e.g., two CF3 groups, the inversion pathway seems preferred. This is the first example of a methoxycarbenium ion which undergoes stereomutation by inversion rather than rotation.
- L7 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 1972:59617 CAPLUS
- DN 76:59617
- TI Alkyl esters of 1-(disubstituted phenyl or benzyl)-1H-indazol-3-yloxyacetic acids
- IN Ambrus, Laszlo
- PA Cutter Laboratories, Inc.
- SO U.S., 5 pp. CODEN: USXXAM
- DT Patent
- LA English
- FAN.CNT 2

1141.011 1					
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 3625971	A	19711207	US 1968-721937	19680417
	IL 31952	A	19730330	IL 1969-31952	19690402
	GB 1223945	A	19710303	GB 1969-1223945	19690416
	CH 514593	A	19711031	CH 1969-514593	19690417

PRAI US 1968-721937 A 19680417

GI For diagram(s), see printed CA Issue.

AB The title compds. (I, R=Cl or H; R1=H or CF3; R2=Et, Me, Pr, Bu, Bu-tert, or CH2CH2NEt2; n=0 or 1), useful as antiinflammatory agents (limb volume test in rats), were prepared by a Williamson ether synthesis. Thus, a mixture of 17 g 1-[3,5-bis(trifluoromethyl)phenyl]-1H-indazol-3-ol and 3 g MeONa in 200 ml MeCN and 50 ml EtOH was refluxed, 9 g BrCH2CO2Et, added in 1 hr, and the product refluxed 2 hr to give 14 g Et [1-[3,5-bis(trifluoromethyl)-phenyl]-1H-indazol-3-yloxy]acetate (II). II had a lower oral toxicity when administered to rats than the coresponding acid. Six addnl. I were similarly prepared 2-(Diethylamino)-ethyl [1-[3,5-bis(trifluoromethyl)phenyl]-1H-indazol-3-yloxy]-acetate was prepared by

acid with 2-(diethylamino)-ethyl chloride in iso-PrOH.

L7 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1972:59616 CAPLUS

DN 76:59616

TI 1-(Disubstituted phenyl or benzyl)-1H-indazol-3-yloxyacetic acids

treating 1-[3,5-bis(trifluoromethyl)-phenyl]-1H-indazol-3-yloxy)acetic

IN Ambrus, Laszlo

PA Cutter Laboratories, Inc.

SO U.S., 4 pp. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 3625970	Α	19711207	US 1968-721918	19680417	
PRAI	US 1968-721918	Α	19680417	1		

GI For diagram(s), see printed CA Issue.

The title compds. (I, R=Cl or H, R1=H or CF3, n=1 or 0), useful as antiinflammatory agents, were prepared by a Williamson ether synthesis. Thus, a mixture of 17 g 1-[3,5-bis(trifluoromethyl)phenyl]-1H-indazol-3-ol and 3 g MeONa in 200 ml MeCN and 50 ml EtoH was refluxed and 9 g BrCH2CO2Et was added in 1 hr. The product was refluxed 2 hr and saponified to give [1-(3,5-bis(trifluoromethyl)phenyl-1H-indazol-3-yloxy]acetic acid (I, R=H, R1=CF3, n=0). I (R=2-Cl, R1=H, n=0) and I (R=H, R1=CF3, n=1) were similarly prepared The acids exhibited antiinflammatory activity in rats when tested by the limb volume test.

L7 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1971:449074 CAPLUS

DN 75:49074

TI Alkyl esters of 1-(disubstituted phenyl or benzyl)-1H-indazol-3-yloxy acetic acids

PA Cutter Laboratories, Inc.

SO Brit., 9 pp.

CODEN: BRXXAA

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	GB 1223945	Α	19710303	GB 1969-1223945	19690416
	US 3625971	A	19711207	US 1968-721937	19680417
PRAI	US 1968-721937	Α	19680417		

GI For diagram(s), see printed CA Issue.

AB The title compds. (I) are derivs. of 1-(disubstituted-phenyl or benzyl)-1H-indazol-3-ols (II, R1 = CF3, R2 = CF3, halo, lower lower alkyl) in which the indazole nucleus has at its 3-position an ether O atom bearing a lower alkoxy carbonylmethyl group, CH2CO2R when R = lower alkyl optionally substituted by OH, alkoxy or dialkylamino. II are prepared by a series of reactions beginning with the phenylamine compound bearing the

R1,R2 substituents. The amine compound is acetylated and the acetamide arylated with PhBr, K2CO3 and catalytic amts. of KI and CuBr in PhNO2. The resulting N-substituted acetamide is hydrolyzed with excess Cl2CO at -5 to +5°. The substituted carbamoyl chloride is treated with NaN3 and the azide decomposition rearranged, and cyclized in refluxing xylene gives II. The title compds. are obtained by the Williamson ether synthesis by reaction of an alkali metal salt of II with an alkyl haloacetate in an inert solvent. Thus 17 g II (R1 = 3-CF3, R2 = 5-CF3) and 3 g NaOMe refluxed 1 hr in 200 ml MeCN and 50 ml alc. with addition of 9 g BrCH2CO2Et and the refluxing continued 2 hr gave Et [1-[3,5bis(trifluoromethyl)phenyl]-1-H-indazol-3-yloxylacetate. Similarly were produced seven other I. Substituted benzyl halides prepared by the Grignard reaction reacted with the mixture resulting from the reaction of an alkali metal alkoxide and indazolone give 1-benzyl-1H-indazol-3-ol. Thus 3,5-(F3C)2C6H3CH2Br, added to indazole and NaOMe in refluxing alc. and the concentrated mixture diluted with H2O gave 1-[3,5-bis(trifluoromethyl)benzyl]-1Hindazol-3-ol. I exhibit antiinflammatory activity and are useful as optical brighteners for use in detergent formulations. => s 16 and paraformaldehyde 17521 PARAFORMALDEHYDE 1 L6 AND PARAFORMALDEHYDE => d bib abs ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN 2005:346966 CAPLUS 142:392168 Grignard reaction process for the preparation 3,5bis(trifluoromethyl)benzyl alcohol from 3,5-bis(trifluoromethyl)phenylmagn esium halides and solid paraformaldehyde Nardello, Alessandro; Pretto, Marisa; Faccin, Andrea Miteni S.p.A., Italy PCT Int. Appl., 14 pp. CODEN: PIXXD2 Patent English FAN.CNT 1 APPLICATION NO. PATENT NO. KIND DATE DATE _____ -----_____ A1 20050421 WO 2003-IT616 20031013 WO 2005035472 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,

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             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
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                                           AU 2003-279541
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                                            EP 2003-772649
     EP 1673329
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             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK
                                            US 2006-575485
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     US 2007135662
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PRAI WO 2003-IT616
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     CASREACT 142:392168
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A Grignard reaction process for the preparation 3,5-bis(trifluoromethyl)benzyl AB alc. (I) from 3,5-bis(trifluoromethyl)phenylmagnesium halides [e.g., 3,5-bis(trifluoromethyl)phenylmagnesium bromide] and solid paraformaldehyde is described. I can then be converted into

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3,5-bis(trifluoromethyl)benzyl halides [e.g., 3,5-
     bis(trifluoromethyl)benzyl bromide] by halogenation with hydrogen halides
     (e.g., hydrogen bromide).
              THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
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             2 L6 AND GRIGNARD
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     ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
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     2005:346966 CAPLUS
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     142:392168
     Grignard reaction process for the preparation
     3,5-bis(trifluoromethyl)benzyl alcohol from 3,5-
     bis(trifluoromethyl)phenylmagnesium halides and solid paraformaldehyde
IN
     Nardello, Alessandro; Pretto, Marisa; Faccin, Andrea
PA
     Miteni S.p.A., Italy
SO
     PCT Int. Appl., 14 pp.
     CODEN: PIXXD2
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     Patent
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    English
FAN.CNT 1
    PATENT NO.
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            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
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             PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
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             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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     EP 1673329
                         A1
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                                          EP 2003-772649
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            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK
                               20070614
     US 2007135662
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                                           US 2006-575485
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PRAI WO 2003-IT616
                                20031013
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     CASREACT 142:392168
AB
     A Grignard reaction process for the preparation 3,5-
     bis(trifluoromethyl)benzyl alc. (I) from 3,5-bis(trifluoromethyl)phenylmag
     nesium halides [e.g., 3,5-bis(trifluoromethyl)phenylmagnesium bromide] and
     solid paraformaldehyde is described. I can then be converted into
     3,5-bis(trifluoromethyl)benzyl halides [e.g., 3,5-
     bis(trifluoromethyl)benzyl bromide] by halogenation with hydrogen halides
     (e.g., hydrogen bromide).
              THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 3
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
1.9
     ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
AN
     1971:449074 CAPLUS
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     75:49074
    Alkyl esters of 1-(disubstituted phenyl or benzyl)-1H-indazol-3-yloxy
TI
     acetic acids
PA
     Cutter Laboratories, Inc.
    Brit., 9 pp.
SO
     CODEN: BRXXAA
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DT Patent LA English FAN.CNT 2

AB

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	GB 1223945	A	19710303	GB 1969-1223945	19690416
	US 3625971	A	19711207	US 1968-721937	19680417
PRAI	US 1968-721937	Α	19680417		

GI For diagram(s), see printed CA Issue.

The title compds. (I) are derivs. of 1-(disubstituted-phenyl or benzyl)-1H-indazol-3-ols (II, R1 = CF3, R2 = CF3, halo, lower lower alkyl) in which the indazole nucleus has at its 3-position an ether O atom bearing a lower alkoxy carbonylmethyl group, CH2CO2R when R = lower alkyl optionally substituted by OH, alkoxy or dialkylamino. II are prepared by a series of reactions beginning with the phenylamine compound bearing the R1,R2 substituents. The amine compound is acetylated and the acetamide arylated with PhBr, K2CO3 and catalytic amts. of KI and CuBr in PhNO2. The resulting N-substituted acetamide is hydrolyzed with excess Cl2CO at -5 to +5°. The substituted carbamoyl chloride is treated with NaN3 and the azide decomposition rearranged, and cyclized in refluxing xylene gives The title compds. are obtained by the Williamson ether synthesis by reaction of an alkali metal salt of II with an alkyl haloacetate in an inert solvent. Thus 17 g II (R1 = 3-CF3, R2 = 5-CF3) and 3 g NaOMe refluxed 1 hr in 200 ml MeCN and 50 ml alc. with addition of 9 g BrCH2CO2Et and the refluxing continued 2 hr gave Et [1-[3,5bis(trifluoromethyl)phenyl]-1-H-indazol-3-yloxylacetate. Similarly were produced seven other I. Substituted benzyl halides prepared by the Grignard reaction reacted with the mixture resulting from the reaction of an alkali metal alkoxide and indazolone give 1-benzyl-1H-indazol-3-ol. Thus 3,5-(F3C)2C6H3CH2Br, added to indazole and NaOMe in refluxing alc. and the concentrated mixture diluted with H2O gave 1-[3,5-bis(trifluoromethyl)benzyl]-1H-indazol-3-ol. I exhibit antiinflammatory activity and are useful as optical brighteners for use in detergent formulations.